

REMARKS

Claims 29, 43, 44, and 59-62 are currently being amended, while new claims 64-70 currently being added. Basis for the amendments to the aforementioned claims can be found on page 10, lines 19-21 in Applicant's specification. Additionally, basis for new claims 64-70 can be found on page 5, lines 19-23; page 6, lines 22-23; and page 10, lines 20-21 in Applicant's specification. With respect to the amendment to claim 43 to obviate the instant rejection under 35 U.S.C. §112, 2nd paragraph, basis for the amendment can be found throughout Applicant's specification, including on page 22, lines 22-24.

The amendments presented herein do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, the Examiner is respectfully requested to enter these amendments.

1. Rejection of Claims 29-58 Under 35 U.S.C. §102(b)/103(a) to

U.S. Patent 6,586,528

Applicant respectfully traverses the rejection of claims 29-58 as being anticipated under 35 U.S.C. §102(b), or alternatively, as being unpatentable under 35 U.S.C. §103(a) with respect to U.S. Patent 6,586,528 (herein referred to as, "Delaite, et al.").

Anticipation:

For a reference to anticipate an invention, all of the elements

of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant is currently claiming propylene copolymer compositions comprising, in part, a propylene copolymer A) and a propylene copolymer B), wherein the resultant propylene copolymer composition further comprises a tensile E modulus ranging from about 400 MPa to about 800 MPa, and a molar mass distribution M_w/M_n ranging from 1.5 to 3.5. Additionally, the currently claimed propylene copolymer compositions are obtained by using a catalyst system comprising a metallocene compound, which results, in part, in the propylene copolymer compositions comprising a narrow molar mass distribution (i.e., M_w/M_n ranging from 1.5 to 3.5).

Alternatively, Delaite, et al. discloses the polymer compositions therein are preferably obtained via Ziegler-Natta catalyst systems. In fact, Delaite, et al. discloses on page 4, lines 34-43,

Polymers (A) and (B) are preferably obtained by polymerization of propylene and, as the case may be, of

ethylene by means of catalytic systems comprising **a solid based on titanium trichloride**, an alkylaluminum and optionally an electron donor. (Emphasis added)

Additionally, every working example in Delaite, et al. (i.e., Examples 1 to 3) are produced using Ziegler-Natta catalyst systems. See col. 6, lines 40-49. Therefore, since Ziegler-Natta catalyst systems are known to produce polymer compositions comprising broad molar mass distributions (i.e., M_w/M_n), Applicant respectfully believes Delaite, et al. clearly does not anticipate the currently claimed propylene copolymer compositions.

Moreover, as explained in Applicant's specification on page 1, lines 15-23,

It is known that multiphase propylene copolymers having a good impact toughness and a decreasing stiffness can be prepared by means of Ziegler-Natta catalyst systems in a multistage polymerization reaction. However, the incorporation of ethylene-propylene copolymers having a high proportion of ethylene into a polymer matrix makes the multiphase propylene copolymer turbid. Poor miscibility of the flexible phase with the polymer matrix leads to a separation of the phases and thus to turbidity and to poor transparency values of the heterogeneous copolymer. Furthermore, the ethylene-propylene rubber prepared by means of conventional Ziegler-Natta catalysts also has a very inhomogeneous composition.

Accordingly, Applicant's currently claimed propylene copolymer compositions, which are produced using a catalyst system comprising a metallocene compound, obviate the problems encountered by prior compositions produced using Ziegler-Natta catalyst systems, such as those outlined in Delaite, et al.

As such, in light of the above, Applicant respectfully believes

the anticipation rejection to Delaite, et al. should be withdrawn.

Obviousness:

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

As outlined *supra*, the compositions of the instant application overcome the deficiencies of compositions produced using Ziegler-Natta catalyst systems, including those of Delaite, et al. In particular, as outlined in Applicant's specification, compositions produced using Ziegler-Natta catalyst systems have increased turbidity between the polymer matrix and flexible polymer phase,

which leads to poor transparency values in the resultant polymer. Additionally, the ethylene-propylene rubber phase produced by a Ziegler-Natta catalyst system is very inhomogeneous, and the resultant compositions would have a broad molar mass distribution. Alternatively, Applicant's currently claimed compositions overcome the deficiencies of compositions produced using Zeigler-Natta catalyst systems, including those of Delaite, et al., by producing compositions having better transparency values, as well as a better balance of physical properties, including tensile E modulus values ranging from about 400 MPa to about 800 MPa, and a narrow molar mass distribution (i.e., a M_w/M_n ranging from 1.5 to 3.5). As such, given the explicit disclosure of Delaite, et al., Applicant respectfully believes one of ordinary skill in the art would not have been motivated to modify Delaite, et al. in an attempt to arrive at Applicant's currently claimed propylene copolymer compositions, nor would one of ordinary skill in the art expected to arrive at Applicant's currently claimed propylene copolymer compositions comprising an unexpected balance of properties, including better transparency values (i.e., low haze values) and physical properties (i.e., tensile E modulus values ranging from 400 MPa to 800 MPa). However, this is the Examiner's initial burden to establish a *prima facie* case of obviousness. See MPEP §2142.

In light of the above, as well as the arguments provided throughout the rest of this response, Applicant respectfully

believes claims 29-70 are patentably distinct over Delaite, et al. As such, Applicant respectfully requests the Examiner to withdraw the current rejection.

2. Rejection of Claims 29-58 and 63 Under 35 U.S.C.

§102(b)/103(a) to U.S. Patent 5,753,773

Applicant respectfully traverses the rejection of claims 29-58 and 63 as being anticipated under 35 U.S.C. §102(b), or alternatively, as being unpatentable under 35 U.S.C. §103(a) with respect to U.S. Patent 5,753,773 (herein referred to as, "Langhauser, et al.").

Anticipation:

As outlined above, for a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

As with Delaite, et al., Applicant respectfully believes Langhauser, et al. fails to disclose, teach, or suggest Applicant's specifically claimed propylene copolymer compositions comprising, in part, a **propylene copolymer A)** comprising from **0.05 to 0.99%** by weight of at least one C₂-C₁₀ alpha-olefin, and a propylene copolymer B) comprising from about **7.01 to about 20.0%** by weight of at least one C₂-C₁₀ alpha-olefin, wherein the resultant propylene copolymer composition further comprises a **tensile E modulus ranging from about 400 MPa to about 800 MPa**, and a molar mass distribution M_w/M_n ranging from 1.5 to 3.5. In particular, Applicant respectfully believes Langhauser, et al. generally relates to propylene block copolymers comprising, preferably, a **propylene homopolymer** as polymer a), and a propylene copolymer as polymer b), wherein the propylene copolymer can have an extremely broad comonomer content range (i.e., 15% to 95% by weight of another C₂-C₁₀ 1-alkene). See col. 1, lines 62-66 in Langhauser, et al. In fact, not only does Langhauser, et al. disclose polymer a) is preferably a **propylene homopolymer**, whereas Applicant is currently claimed a **propylene copolymer** comprising a specific comonomer content (i.e., 0.05 to 0.99% by weight), but Langhauser, et al. discloses **polymer b) can actually be a copolymer other than a propylene copolymer** (i.e., Langhauser, et al. discloses copolymer b) be can comprise 15 to 95% by weight of another C₂-C₁₀ 1-alkene; thus, a copolymer comprising more than 50% by weight of another C₂-C₁₀ 1-alkene would not be a

propylene copolymer).

Alternatively, Applicant has unexpectedly found that when the currently claimed propylene copolymer compositions, comprising the specifically claimed copolymer A) and specifically claimed copolymer B), are produced using a catalyst system comprising a metallocene compound, the resultant compositions comprise an unexpectedly better balance of physical properties, including a tensile E modulus ranging from about 400 MPa to about 800 MPa, as well as better transparency properties. Applicant is aware Langhauser, et al. is silent with respect to the currently claimed properties; however, as evidence, Applicant directs the Examiner to U.S. Patent 7,342,078 (herein referred to as, "Schottek, et al.").

First and foremost, as outlined *supra*, Langhauser, et al. is directed towards compositions preferably comprising a **propylene homopolymer** as polymer a). See col. 1, lines 63-64, as well as Examples 1-3 in Langhauser, et al. Contrastingly, Applicant is currently claiming propylene copolymer compositions comprising a **propylene copolymer A)** comprising a specific comonomer content (i.e., 0.05 to 0.99% by weight) and a propylene copolymer B) comprising a specific comonomer content (i.e., about 7.01 to about 20.0% by weight), which unexpectedly comprise tensile E modulus values ranging from about 400 MPa to about 800 MPa, as well as better haze values. To evidence Applicant's unexpected better balance of properties, the Examiner is directed to Examples 98-102

in Schottek, et al. In particular, Examples 98-102 in Schottek, et al. comprise 71% to 80% by weight of a **propylene homopolymer** and 20% to 29% by weight of a **propylene/ethylene copolymer**, wherein both fractions are prepared via a catalyst system comprising a metallocene compound. See col. 64, line 50, through col. 67, line 45, including Tables 2-3 in Schottek, et al. As outlined in Table 3 in col. 67 in Schottek, et al., the resultant compositions that comprise a **propylene homopolymer** as component A) and a **propylene copolymer** as component B) comprise tensile E modulus values ranging from 1020 MPa to 1156 MPa, which is 127.5% to 289% higher than the values currently claimed by Applicant (i.e., 400 MPa to 800 MPa). As such, given the evidence supplied in Schottek, et al., Applicant respectfully believes the compositions of Langhauser, et al., which comprise a **propylene homopolymer** as polymer a) and a **propylene copolymer** as polymer b), would necessarily comprise higher tensile E modulus values, and would thus be materially different than those currently claimed.

In addition to differences in tensile E modulus values, the currently claimed compositions also have unexpectedly better transparency values. In particular, again as evidenced by Schottek, et al., compositions that comprise a **propylene homopolymer** as component A) and a **propylene copolymer** as component B), versus Applicant's currently and specifically claimed propylene copolymers as components A) and B), comprise haze values ranging from 8% to 20%

on films, according to ASTM D-1003. See Table 3 in Schottek, et al. Alternatively, Applicant's currently claimed films comprise haze values less than about 5%, and in particular, Example 1 in Applicant's specification comprises a haze value of 1.21% according to ASTM D-1003. See Table 4 in Applicant's specification, as well as currently pending claim 46. Accordingly, since the compositions of Schottek, et al. mirror those disclosed in Langhauser, et al., Applicant respectfully believes the haze values of the currently claimed compositions would clearly be much lower than the haze values of the compositions disclosed in Langhauser, et al.

Therefore, in light of the above, Applicant respectfully believes the anticipation rejection to Langhauser, et al. should be withdrawn.

Obviousness:

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Arguments *supra* regarding Langhauser, et al. are incorporated herein by reference in their entirety.

As discussed above, Applicant respectfully believes the compositions of Langhauser, et al. are materially different than those currently claimed by Applicant, insomuch that polymer a) in Langhauser, et al. is preferably a propylene **homopolymer** versus the specific propylene copolymer currently claimed by Applicant, as well as the evidence provided *supra* from Schottek, et al., which demonstrates that compositions comprising a propylene homopolymer as component A) necessarily results in the compositions having much higher tensile E modulus values, and much lower transparency values than those currently claimed by Applicant. Therefore, Applicant respectfully believes the evidence submitted herewith this response demonstrates Applicant's unexpected tensile E modulus values and unexpected transparency values. With this in mind, Applicant respectfully believes one of ordinary skill in the art would not have been motivated to modify Langhauser, et al. in an attempt to arrive at Applicant's currently claimed compositions, nor would one

having ordinary skill in the art expect to have any success in arriving at Applicant's currently claimed compositions comprising the unexpected tensile E modulus values and unexpected transparency values currently claimed by Applicant. Therefore, given the unexpected properties of Applicant's currently claimed compositions, Applicant respectfully believes the instant rejection to Langhauser, et al. should be withdrawn.

In light of the above, Applicant respectfully believes claims 29-70 are patentably distinct over Langhauser, et al. As such, Applicant respectfully requests the Examiner to withdraw the current rejection.

3. Rejection of Claims 59, 60, and 62 Under 35 U.S.C. §103(a) to Langhauser, et al. in view of U.S. Patent Application Publication

2004/0033349

Applicant respectfully traverses the rejection of claims 59, 60, and 62 as being unpatentable under 35 U.S.C. §103(a) with respect to Langhauser, et al. in view of U.S. Patent Application Publication 2004/0033349 (herein referred to as, "Henderson").

For the sake of brevity, arguments *supra* regarding Langhauser, et al. are incorporated herein by reference in their entirety.

With respect to the instant rejection, Applicant respectfully believes Henderson fails to remedy the deficiencies of Langhauser, et al. In particular, Applicant respectfully believes Henderson

fails to disclose, teach, or suggest, individually or together with Langhauser, et al., Applicant's currently claimed propylene copolymer compositions comprising the specifically claimed propylene copolymer A) and the specifically claimed propylene copolymer B), wherein the propylene copolymer composition unexpectedly comprises a tensile E modulus ranging from 400 MPa to 800 MPa, as well as better transparency values. Therefore, Applicant respectfully believes claims 29-70 are patentably distinct over Langhauser, et al. in view of Henderson. As such, Applicant respectfully requests the Examiner to withdraw the current rejection.

**4. Rejection of Claim 61 Under 35 U.S.C. §103(a) to Langhauser,
et al. in view of U.S. Patent Application Publication
2004/0029469**

Applicant respectfully traverses the rejection of claim 61 as being unpatentable under 35 U.S.C. §103(a) with respect to Langhauser, et al. in view of U.S. Patent Application Publication 2004/0029469 (herein referred to as, "Anderson, et al.").

For the sake of brevity, arguments *supra* regarding Langhauser, et al. are incorporated herein by reference in their entirety.

With respect to the instant rejection, Applicant respectfully believes Anderson, et al. fails to remedy the deficiencies of Langhauser, et al. In particular, Applicant respectfully believes Anderson, et al. fails to disclose, teach, or suggest, individually

or together with Langhauser, et al., Applicant's currently claimed propylene copolymer compositions comprising the specifically claimed propylene copolymer A) and the specifically claimed propylene copolymer B), wherein the propylene copolymer composition unexpectedly comprises a tensile E modulus ranging from 400 MPa to 800 MPa, as well as better transparency values. Therefore, Applicant respectfully believes claims 29-70 are patentably distinct over Langhauser, et al. in view of Anderson, et al. As such, Applicant respectfully requests the Examiner to withdraw the current rejection.

5. Rejection of Claims 43 and 63 Under 35 U.S.C. 112, 2nd Paragraph

Applicant has amended claim 43 to obviate the instant rejection. Additionally, claim 63 depends from claim 43, and as such, includes all of the limitations of claim 43 therein. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection.

6. Double Patenting Rejection of Claims 43 and 63 to Claims 1 and 9 in Co-Pending U.S. Patent Application Serial No. 11/660,183

Applicant respectfully requests the Examiner to hold the instant rejection in abeyance, since neither application has issued as a patent.

7. Double Patenting Rejection of Claims 43 and 63 to Claims 1, 5,
and 22 in Co-Pending U.S. Patent Application Serial No.

11/660,182

Applicant respectfully requests the Examiner to hold the instant rejection in abeyance, since neither application has issued as a patent

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all pending rejections; and allow pending claims 29-70. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

In order to advance prosecution on the above-identified application, the Examiner is welcomed to telephone the undersigned practitioner if she has any questions or comments.

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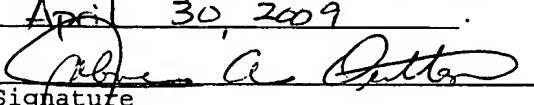
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U.S. Patent Application
Serial No. 10/593,791

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